

Amendments to the Specification:

Please replace paragraph [0015] with the following paragraph:

[0015] With reference to FIG. 2, there is illustrated the method of the present invention whereby the W2RD, W2RINT, and the FNRQ may be combined to produce a W2RCH which provides a substantially more linear thrust response to linear movements of the throttle. This is primarily accomplished through the utilization of three schedules (S1, S2, and S3) as opposed to the single schedule illustrated ~~utilized~~ in FIG. 1 ~~step 1~~ and discussed above with reference to the prior art. Returning to FIG. 2, note that step 4 6 of the method of the present invention computes W2RSCH from W2RID, W2RINT, and PLAIDX through a combination according to the equation $W2RSCH = W2RID + PLAIDX (W2RINT - W2RID)$ as illustrated in step 6 4.

Please replace paragraph [0016] with the following paragraph:

[0016] As with the prior art, W2RID and W2RINT are variables which are continuously derived from engine performance during the duration of engine operation. Specifically, for any given engine a schedule may be created from which W2RID is represented as a function of block number (XM) and inlet pressure (P2). Similarly, W2RINT may be represented by a schedule which expresses W2RINT as a function of P2 and inlet temperature (T2) ~~(P2)~~. As a result, P2, T2 and XM may be continuously monitored during engine operation and W2RID and W2RINT may subsequently be computed therefrom. FNRQ is obtained from a measurement of the throttle position.

Please replace paragraph [0017] with the following paragraph:

[0017] With reference to step 1 3, there is illustrated the use of the schedule S1. Schedule S1 is a schedule which maps the engine inlet corrected airflow (W2R) to a W2R index (W2RX) comprising a value between 0 and 1.0. In schedule S1, the range of W2R spans from the absolute minimum to the absolute maximum airflow possible in an engine type for which schedule S1 is computed. As a result, the W2R observed in an operating engine will always be of a value represented on the x-axis of schedule S1. By entering W2RID as the value of W2R in schedule S1, a W2RID index (W2RIDX) is outputted. Similarly, by inputting W2RINT into schedule S1 as the value of W2R, a W2RINT index (W2RINTX) is outputted. These two outputs (W2RIDX), and (W2RINTX) form inputs of step 5 8 as described more fully below.

Please replace paragraph [0018] with the following paragraph:

[0018] With reference to step 2 5, schedule S2 is utilized to map W2R to a throttle index (FNR). In the present example, the range of FNR of schedule S2 extends in an exemplary fashion from 15 to 100. The proper scale for FNR in schedule S2 is from a number indicative of throttle position at idle up to and including a number indicative of throttle position at maximum dry throttle. As is evident, W2RID is used as an input to schedule S2 to form the output throttle position index FNRQX. Likewise, W2RINT is inputted into schedule S2 so as to form the output throttle position index FNRQY. FNRQX and FNRQY are then combined with FNRQ to create an FNRQ equivalent (FNRQEQ) as shown in step 3 6. In step 3 6 there is illustrated the equation by which FNRQEQ is computed. Specifically,
$$\text{FNRQEQ} = \text{FNRQX} + ((\text{FNRQY} - \text{FNRQX}) / \text{full range}) (\text{FNRQ} - \text{FNRQIDLE})$$
 where full range is equivalent to the intermediate throttle position minus the idle throttle position of the engine and FNRQIDLE is equal to the idle throttle position of the engine. As a result of step 3 6, there is computed and outputted FNRQEQ. FNRQEQ is used as the input to schedule S3 as illustrated in step 4 7 to produce the output PLAX. Schedule S3 maps the FNR value to a PLAX. PLAX is the fraction between minimum and maximum engine airflows (0=minimum airflow at any condition, 1.0=maximum airflow at any condition) to provide the fraction of thrust above minimum thrust (0=minimum or idle thrust, 1.0=maximum or intermediate thrust) requested by the throttle position. Lastly, step 5 8 illustrates the equation by which the outputs of

by which the outputs of step 1 3 and step 4 7 are combined to form the output PLAIDX used as input to step 6 4. Specifically in step 5 8, PLAIDX is computed as follows: $PLAIDX = (PLAX - W2RIDX \text{ plus bias}) / (W2RINX - W2RIDX \text{ plus bias})$ where bias is a small value (typically approximately 0.0001) used to insure that the computation of PLAIDX never involves a division by zero. In an alternative embodiment, a check may be performed to insure that PLAIDX never involves such a division and, in the case that division by zero is present, PLAIDX is preferably outputted with a value of 1.0.

Please replace paragraph [0019] with the following paragraph:

[0019] With reference to step 6 4, there is illustrated once again the combination of W2RID, W2RINT and PLAIDX to form the W2RSCH which is the scheduled thrust response used to achieve a linear thrust in response to the linear movement of the throttle.

Please replace paragraph [0021] with the following paragraph:

[0021] With reference to FIG. 4 there is illustrated the system of the present invention. Operating parameters of operating engine 41, preferably a gas turbine engine, are sensed using a sensor 43 known in the art to sense gas flow, temperature, pressure, and the like. ~~These sensed parameters include both the W2RINT and the W2RID.~~ At the same time, the throttle position (FNRQ) is sensed at the throttle 45. W2RINT, W2RID, and FNRQ are electronically transmitted to processor 47. Processor 47 is an electronic computing device capable of accessing the schedules (S1, S2, S3), producing the outputs detailed above, and computing the W2RSCH. The calculated W2RSCH is utilized to add or subtract fuel flow to the engine 41 in order to obtain a linear airflow giving rise to a predominantly linear thrust response to the movement of the throttle position 45.